

11-3: Factoring Special Cases: The fun part

Discriminant Theorem for Factoring Quadratics:

Prime/Irreducible:

Example 1: Determine whether the following are prime.

a. $x^2 - 9$

b. $x^2 - 10$

Example 2: Can $6m^2 - 7m - 20$ be factored? If so, factor it.

Wait a minute! How do we factor this? This is not any of the special cases we looked at!

Process to factor polynomials:

1.

2.

3.

Example 3: Factor $12x^3 - 28x^2 - 24x$.

It's easier when $a = 1$.

Example 4: Factor.

a. $x^2 + 5x + 6$

b. $x^2 - 7x + 6$

Example 5: Factor.

a. $4x^2 - 16x + 16$

b. $25b^4 - 81r^2$

c. $2x^2 + x - 6$

d. $4x^2 - 19x + 12$

e. $2x^2 - 4x - 16$

f. $-6x^2 - x + 2$

Homework:

"The best way to predict the future is to invent it." – Alan Kay